

What is claimed is:

1. A method for treating coronary artery disease in a patient, comprising:
5 placing a pacing electrode in proximity to a pacing site which is located near a site of atherosclerotic plaque within an intra-myocardial portion of a coronary artery; and,
delivering pacing pulses to the pacing site in a manner which pre-excites the pacing site relative to other areas of the myocardium during a cardiac cycle.
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2. The method of claim 1 wherein the pacing pulses are delivered to the pacing site in accordance with a demand pacing mode.
3. The method of claim 1 wherein the pacing pulses are delivered to the pacing
15 site in a triggered pacing mode.
4. The method of claim 1 wherein the pacing electrode is disposed in the coronary sinus so as to pace a left ventricular pacing site.
- 20 5. The method of claim 1 wherein the pacing electrode is disposed in a cardiac vein so as to pace a left ventricular pacing site.
6. The method of claim 1 further comprising:
placing a plurality of pacing electrodes in proximity to a plurality of pacing
25 sites; and,
delivering pacing pulses to one or more pacing sites according to a defined pulse output configuration and a defined pulse output sequence which pre-excites one or more pacing sites located near sites of atherosclerotic plaque relative to other areas of the myocardium during a cardiac cycle.

7. The method of claim 6 further comprising:
detecting changes in the location of atherosclerotic plaque in the patient's coronary arteries; and,
modifying the delivery of pacing pulses so as to provide pre-excitation to
5 pacing sites located near sites of atherosclerotic plaque.
8. The method of claim 7 further comprising pacing a plurality of pacing sites and modifying the delivery of pacing pulses by altering the pulse output sequence.
- 10 9. The method of claim 7 further comprising modifying the delivery of pacing pulses by altering the pulse output configuration.
10. The method of claim 6 further comprising delivering paces to a plurality of pacing sites in order to provide cardiac resynchronization therapy.
- 15 11. The method of claim 10 further comprising altering the pulse output configuration from one optimal for providing cardiac resynchronization therapy to one optimal for stabilizing intra-myocardial plaque in accordance with a measured variable.
- 20 12. The method of claim 11 wherein the measured variable is an exertion level.
13. The method of claim 11 wherein the measured variable is heart rate.
- 25 14. The method of claim 10 further comprising altering the pulse output sequence from one optimal for providing cardiac resynchronization therapy to one optimal for stabilizing intra-myocardial plaque in accordance with a measured variable.
15. The method of claim 14 wherein the measured variable is an exertion level.

16. The method of claim 14 wherein the measured variable is heart rate.
17. The method of claim 1 further comprising monitoring intrinsic cardiac activity for the presence of arrhythmias and delivering shock therapy as appropriate.